

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method to enable a wireless device to discover Internet businesses or services by accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

forming ~~of a~~ first query to the UDDI registry for the wireless device user;
receiving a returned message from the UDDI registry in response to the first query;
selecting an item from the returned message for a drill-down query to the UDDI registry;
using the item from the returned message as data for a UDDI registry search strategy
stored with the first query in a user profile;
~~constructing a personal user profile of UDDI searching strategies of the user; and~~
providing a shortcut for queries to the UDDI registry using the UDDI registry search
strategy stored in the user profile, in response to the user's entry of the first query ~~abbreviated~~
~~inputs~~ to the wireless device.

Claim 2. (Original): The method of claim 1, wherein the method is embodied as programmed instructions executed within the user's wireless device to query the UDDI registry.

Claim 3. (Original): The method of claim 1, wherein the method is embodied as programmed instructions executed within a separate knowledge engine server to query the UDDI registry in response to commands from the user's wireless device.

Claim 4 (Original): The method of claim 3, wherein the server caches files accessed from web sites, for selective forwarding to the user's wireless device.

Claim 5 (Currently Amended): A method to enable a wireless device to discover Internet businesses or services by accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

- entering a search handle that will be associated with a user's search strategy;
- entering query terms as at least part of a business name;
- sending a *find_business* XML inquiry to the UDDI registry; and
- receiving back from the UDDI registry, a *businessList* message that contains a list of business names satisfying the *find_business* query; [.]

selecting an item from the returned message for a drill-down query to the UDDI registry;

using the item from the returned message as data for a UDDI registry search strategy stored with the query terms in a user profile; and

providing a shortcut for queries to the UDDI registry using the UDDI registry search strategy stored in the user profile, in response to the user's entry of the query terms to the wireless device.

Claim 6 (Original): The method of claim 5, which further comprises:

- selecting an item from the returned *businessList* message;
- drilling down in the selected business' entity data;
- sending a *find_service* XML inquiry to the UDDI registry;

receiving back from the UDDI registry, a *serviceList* message that contains a list of names of services offered by the selected business.

Claim 7 (Original): The method of claim 6, which further comprises:
selecting an item from the returned *serviceList* message;
drilling down in the selected service data;
sending a *_get_serviceDetail_XML* inquiry to the UDDI registry;
receiving back from the UDDI registry, a *serviceDetail* message that includes *bindingTemplate* data that contains the details of the selected service.

Claim 8 (Original): The method of claim 7, which further comprises:
including in the *bindingTemplate* data an *accessPoint URL*, which is the URL of the selected service on the web site of the selected business.

Claim 9 (Original): The method of claim 8, which further comprises:
displaying the *accessPoint URL* to the user.

Claim 10 (Original): The method of claim 8, which further comprises:
storing the search handle in a user profile with the selected *accessPoint URL*;
providing the user with a shortcut for accessing pages from web sites, in response to the user's entry of abbreviated search handle to the wireless device.

Claim 11 (Original): The method of claim 8, which further comprises:

storing the search handle in a user profile with a UDDI registry search strategy;
providing the user with a shortcut for online or offline queries to the UDDI registry, in response to the user's entry of abbreviated search handle to the wireless device.

Claim 12 (Original): The method of claim 11, which further comprises:

said search strategy including the business name query , the selected *businessEntity* data, the selected *businessService* data, the selected *bindingTemplate* data, and the selected *accessPoint* URL.

Claim 13 (Original): The method of claim 11, which further comprises:

replaying a UDDI registry search strategy by entering a search handle into the wireless device;

automatically accessing the UDDI registry search strategy from user profile corresponding to the search handle;

loading query values from said UDDI registry search strategy as each respective operand that would have been otherwise entered by the user.

Claim 14 (Original): The method of claim 13, which further comprises:

said query values including the business name query , the selected *businessEntity* data, the selected *businessService* data, and the selected *bindingTemplate* data.

Claim 15 (Currently Amended): A method to enable a wireless device to discover Internet businesses or services by accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

entering a search handle in a wireless device that will be associated with the user's search strategy;

entering query terms in the wireless device as at least part of a business name;

transmitting the search handle and query terms to a knowledge engine server;

sending with the knowledge engine server a *find_business* XML inquiry to the UDDI registry; and

receiving back at the knowledge engine server from the UDDI registry, a *businessList* message that contains a list of business names satisfying the *find_business* query ; [.]

selecting an item from the returned message for a drill-down query to the UDDI registry;

using the item from the returned message as data for a UDDI registry search strategy stored with the query terms in a user profile at the knowledge engine server; and

providing a shortcut for queries to the UDDI registry using the UDDI registry search strategy stored in the user profile, in response to the user's entry of the query terms to the wireless device.

Claim 16 (Original): The method of claim 15, which further comprises:

selecting an item from the returned *businessList* message;

drilling down in the selected business' entity data;

sending with the knowledge engine server a *find_service* XML inquiry to the UDDI registry;

receiving back at the knowledge engine server from the UDDI registry, a *serviceList* message that contains a list of names of services offered by the selected business.

Claim 17 (Original): The method of claim 16, which further comprises:

- selecting an item from the returned *serviceList* message;
- drilling down in the selected service data;
- sending with the knowledge engine server a *_get_serviceDetail_* XML inquiry to the UDDI registry;
- receiving back at the knowledge engine server from the UDDI registry, a *serviceDetail* message that includes *bindingTemplate* data that contains the details of the selected service.

Claim 18 (Original): The method of claim 17, which further comprises:

- including in the *bindingTemplate* data an *accessPoint URL*, which is the URL of the selected service on the web site of the selected business.

Claim 19 (Original): The method of claim 18, which further comprises:

- displaying the *accessPoint URL* to the user.

Claim 20 (Original): The method of claim 18, which further comprises:

- storing with the knowledge engine server the search handle in a user profile with the selected *accessPoint URL*;
- providing the user with a shortcut for accessing pages from web sites, in response to the user's entry of abbreviated search handle to the wireless device.

Claim 21 (Original): The method of claim 18, which further comprises:

storing with the knowledge engine server the search handle in a user profile with a UDDI registry search strategy;

providing the user with a shortcut for online or offline queries to the UDDI registry, in response to the user's entry of abbreviated search handle to the wireless device.

Claim 22 (Original): The method of claim 21, which further comprises:

said search strategy including the business name query , the selected *businessEntity* data, the selected *businessService* data, the selected *bindingTemplate* data, and the selected *accessPoint* URL.

Claim 23 (Original): The method of claim 21, which further comprises:

replaying a UDDI registry search strategy by entering a search handle into the wireless device;

transmitting the search handle to the knowledge engine server;

automatically accessing with the knowledge engine server the UDDI registry search strategy from user profile corresponding to the search handle;

loading with the knowledge engine server query values from said UDDI registry search strategy as each respective operand that would have been otherwise entered by the user.

Claim 24 (Original): The method of claim 23, which further comprises:

said query values including the business name query , the selected *businessEntity* data, the selected *businessService* data, and the selected *bindingTemplate* data.

Claim 25 (Currently Amended): A method to enable a wireless device to discover Internet businesses or services by accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

entering a search handle in a wireless device that will be associated with the user's search strategy;

entering query terms in the wireless device as at least part of a business name;

transmitting the search handle and query terms to a knowledge engine server;

forming at the knowledge engine server a first query to the UDDI registry for the wireless device user;

receiving at the knowledge engine server a returned message from the UDDI registry in response to the first query;

selecting an item from the returned message for a drill-down query to the UDDI registry;

using the item from the returned message as data for a UDDI registry search strategy stored with the first query in a user profile at the knowledge engine server;

providing a shortcut for queries to the UDDI registry using the UDDI registry search strategy stored in the user profile, in response to the user's entry of the first query to the wireless device;

searching web sites using URLs contained in stored binding templates using said shortcut for queries;

retrieving documents resulting from the search of the web sites; and

applying a filter prescribed by the user and stored in the user's profile, to limit the returned documents to only those of particular interest to the user.

Claim 26 (Original): The method of claim 25, which further comprises:
sorting the documents in a list having an order established in accordance with user's profile.

Claim 27 (Original): The method of claim 26, which further comprises:
storing the filtered documents and the sorted list in a cache for later, selective accessing by the user.

Claim 28 (Original): The method of claim 27, which further comprises:
receiving the user's selections from the list and updating the user's profile with the user's preferences.

Claim 29 (Original): The method of claim 28, which further comprises:
associating the search handle with user's selections and with the user's search strategy;
storing that association in user's profile.

Claim 30 (Original): The method of claim 29, which further comprises:
providing the user with a shortcut for accessing pages from web sites, in response to the user's entry of abbreviated search handle to the wireless device.

Claim 31 (Currently Amended): A system to enable a wireless device to discover Internet businesses or services by accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

- a processor;
- a memory coupled to the processor, programmed to perform the steps of:
 - entering a search handle in a wireless device that will be associated with the user's search strategy;
 - entering query terms in the wireless device as at least part of a business name;
 - transmitting the search handle and query terms to a knowledge engine server;
 - sending with the knowledge engine server a *find_business* XML inquiry to the UDDI registry; and
 - receiving back at the knowledge engine server from the UDDI registry a *businessList* message that contains a list of business names satisfying the *find_business* query; [.]
- selecting an item from the returned message for a drill-down query to the UDDI registry;
- using the item from the returned message as data for a UDDI registry search strategy
- stored with the query terms in a user profile at the knowledge engine server; and
- providing a shortcut for queries to the UDDI registry using the UDDI registry search strategy stored in the user profile, in response to the user's entry of the query terms to the wireless device.

Claim 32 (Currently Amended): A system to enable a wireless device to discover Internet businesses or services by accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

a processor;

a memory coupled to the processor, programmed to perform the steps of:

forming a query to the UDDI registry for the wireless device user;

selecting an item from a returned message in response to the query for a drill-down query to the UDDI registry;

constructing a personal user profile of UDDI searching strategies of the user; ~~and~~

using the item from the returned message as data for a UDDI registry search strategy stored with the query in the user profile; and

providing a shortcut for queries to the UDDI registry using the UDDI registry search strategy stored in the user profile, in response to the user's entry of abbreviated inputs to the wireless device.

Claim 33 (Currently Amended): A system comprising:

- (a) a wireless device configured to communicate over a computer network;
- (b) a memory device, communicatively coupled to the wireless device, wherein said memory device stores at least one executable user profile and at least one abbreviated input; and
- (c) a processor, communicatively coupled to the memory device, wherein said processor and memory function to access a network element in accordance with the at least one executable user profile or at least one abbreviated input, wherein said network element includes a user profile that comprises a search strategy [.] ;

wherein said processor is programmed to:

select an item from a returned message in response to a query for a drill-down query to the UDDI registry;

construct the personal user profile of UDDI searching strategies of the user;
use the item from the returned message as data for a UDDI registry search
strategy stored with the query in the user profile; and
provide a shortcut for queries to the UDDI registry using the UDDI registry
search strategy stored in the user profile, in response to the user's entry of abbreviated inputs to
the wireless device.

Claim 34 (Previously Presented): The system of claim 33, wherein said at least one executable user profile consists of an abbreviated user input to the wireless device.

Claim 35 (Previously Presented): The system of claim 33, wherein said network element is a Universal Description, Discovery and Integration (UDDI) registry.

Claim 36 (Previously Presented): The system of claim 33, wherein said network element is a server including a knowledge engine.

Claim 37 (Canceled)

Claim 38 (Previously Presented): The system of claim 33, wherein said search strategy is stored by using a search handle for a business name query.

Claim 39 (Previously Presented): The system of claim 38, wherein said search handle for the business name query comprises a business entry data.

Claim 40 (Previously Presented): The system of claim 38, wherein said search handle for the business name query comprises a business service data.

Claim 41 (Previously Presented): The system of claim 38, wherein said search handle for the business query comprises a binding template data.

Claim 42 (Previously Presented): The system of claim 41, wherein said binding template data comprises an access point URL of the selected service.

Claim 43 (Previously Presented): The system of claim 34, wherein the wireless device stores a search handle in a user profile with the search strategy of the network element.

Claim 44 (Previously Presented): The system of claim 39, wherein the wireless device stores a search handle in a user profile with the search strategy of the network element.

Claim 45 (Currently Amended): A system for enabling a remote wireless device to access internet businesses or services comprising:

(a) at least one memory device, communicatively coupled to a communications network; and

(b) at least one processor device, communicatively coupled to the at least one memory device, wherein said at least one processor device and said at least one memory device function to access files in accordance with at least one search handle transmitted from the remote

wireless device to a network element, wherein the at least one search handle is associated with a user's search strategy[.] ;

wherein said processor device is programmed to:

select an item from a returned message in response to a query for a drill-down query to a database;

construct the personal user profile of searching strategies of the user;

use the item from the returned message as data for a database search strategy stored with the query in a user profile; and

provide a shortcut for queries to the database using the database search strategy stored in the user profile, in response to the user's entry of abbreviated inputs to the wireless device.

Claim 46 (Previously Presented): The system according to claim 45, wherein the accessed files are readable or executable computer code stored in a web site.

Claim 47 (Previously Presented): The system according to claim 46, wherein the accessed files are cached for selective forwarding to the wireless device.

Claim 48 (Previously Presented): The system of claim 45, wherein said network element is accessed using a direct session.

Claim 49 (Previously Presented): The system of claim 45, wherein said network element is accessed using an indirect session through a knowledge server.

Claim 50 (Previously Presented): The system according to claim 48, wherein said network element is a Universal Description, Discovery and Integration (UDDI) registry.

Claim 51 (Canceled)

Claim 52 (Previously Presented): The system according to claim 45, wherein said wireless device stores a search handle in a user profile with the search strategy of the network element.

Claim 53 (Currently Amended): A system for enabling a wireless device to access Internet businesses or services via a Universal Description, Discovery and Integration (UDDI) registry, comprising:

(a) means for entering and storing at least one user query and at least one search handle in a wireless device, wherein a particular one of the at least one user query is associated with a respective search handle;

(b) means for transmitting the at least one query and at least one search handle to a remote server, wherein said server communicates with the UDDI registry to respond to the at least one user query or the at least one search handle;

(c) means for selecting an item from a returned message from the UDDI registry in response to a user query for a drill-down query to the UDDI registry;

(d) means for using the item from the returned message as data for a UDDI registry search strategy stored with the user query in a user profile at the server;

(e) means for providing a shortcut for queries to the UDDI registry using the UDDI registry search strategy stored in the user profile, in response to the user's entry of the query to the wireless device; and

(c) means to receive the server response and interactively display the response on the wireless device.

Claim 54 (Previously Presented): The system of claim 53, further comprising:

means for storing the search handle in a user profile with a UDDI registry search strategy; and

means for providing the user with a shortcut for online or offline queries to the UDDI registry, in response to the user's entry of a abbreviated search handle to the wireless device.

Claim 55 (NEW): A method to enable a wireless device to discover Internet businesses or services by accessing the Universal Description, Discovery and Integration (UDDI) registry, comprising:

automatically compiling a search strategy by forming a composite query composed of consecutive responses to corresponding consecutive queries in a drill-down search of a Universal Description, Discovery and Integration (UDDI) registry; and

storing the search strategy in a user profile as a short cut query for future searching.